

AMENDMENTS TO THE CLAIMS:

Claim 1. (Previously presented) A liquid crystal display panel, comprising:

an array substrate including a driving element for controlling a driving voltage and a display electrode to which a voltage is applied through the driving element are formed;

a first polarization layer for polarizing the light passing through the array substrate;

a liquid crystal layer including a liquid crystal material;

a color filter substrate on which a color filter comprising a color-material film is formed; and

a second polarization layer for polarizing the light passing through the color filter substrate,

wherein the array substrate, the first polarization layer, the liquid crystal layer, the color filter substrate, and the second polarization layer are successively superposed.

Claim 2. (Previously presented) The liquid crystal display panel according to Claim 1, wherein a common electrode is formed on the array substrate and an electric field is generated in a direction parallel with the array substrate by applying a voltage between the display electrode and the common electrode.

Claims 3-10. (Canceled).

Claim 11. (Previously presented) A liquid crystal display device, comprising:

an array substrate provided with an insulating substrate, a thin film transistor formed on the insulating substrate, a polymer layer which covers the insulating substrate and in which polarization elements are dispersed, and a display electrode which is formed on the polymer layer and penetrates the polymer layer and a part of which conductively connects with the thin film transistor;

a color filter substrate disposed so as to face the array substrate by keeping a predetermined gap with the array substrate; and

a liquid crystal layer located at the gap between the array substrate and the color filter substrate; and

a backlight unit for applying light to a liquid crystal display panel from the outside of the array substrate.

Claim 12. (Canceled).

Claim 13. (Previously presented) The liquid crystal display device according to Claim 1,

wherein the array substrate comprises:

an insulating substrate;

a thin film transistor formed on the insulating substrate;

a polymer layer covering the insulating substrate and comprising polarization elements dispersed therein; and

the display electrode formed on the polymer layer and penetrating the polymer layer, a part of the display electrode conductively connecting with the thin film transistor.

Claim 14. (Previously presented) The liquid crystal display device according to Claim 1, wherein the array substrate comprises at least one of a common electrode, a display electrode, a gate electrode, a source electrode, and a drain electrode interposing the array substrate and the first polarization layer, and

wherein at least one of the display electrode, the gate electrode, the source electrode, and the drain electrode reflects light emitted from the backlight unit back to the backlight unit.

Claim 15. (Previously presented) The liquid crystal display device according to Claim 14, wherein at least one of the display electrode, the gate electrode, the source electrode, and the drain electrode comprises a reflective metal film.

Claims 16-18. (Canceled).

Claim 19. (Previously presented) The liquid crystal display panel according to Claim 1, further comprising:

a backlight unit for illuminating the liquid crystal display panel from the outside of the array substrate,

wherein the backlight unit, the array substrate, the first polarization layer, the liquid crystal layer, the color filter substrate, and the second polarization layer are successively superposed,

wherein the array substrate comprises:

an insulating substrate;

a thin film transistor formed on the insulating substrate;

a polymer layer covering the insulating substrate and comprising polarization elements dispersed therein;

a display electrode formed on the polymer layer and penetrating the polymer layer, a part of the display electrode conductively connecting with the thin film transistor; and

a common electrode formed on the array substrate,

wherein the common electrode and the display electrode interpose the backlight unit and the first polarization layer,

wherein the display electrode comprises a reflective metal film that reflects light emitted from the backlight unit back to the backlight unit, and

wherein the reflected light directly returns to the backlight unit without passing through the polarization layer so as to improve the light-recycling efficiency of the backlight unit, thereby improving a brightness of the liquid crystal display compared to a brightness of a liquid crystal display in which light reflected from the array substrate returns to the backlight unit after passing through a polarization layer.

Claim 20. (Previously presented) The liquid crystal display panel according to Claim 1, further comprising:

a backlight unit for illuminating the liquid crystal display panel from the outside of the array substrate,

wherein the backlight unit, the array substrate, the first polarization layer, the liquid crystal layer, the color filter substrate, and the second polarization layer are successively superposed,

wherein:

a gate insulating film is formed on an upper side of the array substrate;

a gate electrode is formed in the gate insulating film;

an a Si film is formed on the gate insulating film;

a source electrode and a drain electrode are formed on the a Si film

serving as a thin film semiconductor to form a thin film transistor serving as a liquid crystal material driving element;

a display electrode is formed on the gate insulating film to extend from the drain electrode; and

a common electrode is formed on the gate insulating film,

wherein the gate electrode, the source electrode, the drain electrode, the display electrode, and the common electrode interpose the backlight unit and the first polarization layer,

wherein at least one of the gate electrode, the source electrode, the drain electrode, and the display electrode comprises a reflective metal film that reflects light emitted from the backlight unit back to the backlight unit, and

wherein the reflected light directly returns to the backlight unit without passing through the polarization layer so as to improve the light-recycling efficiency of the backlight unit, thereby improving a brightness of the liquid crystal display compared to a

brightness of a liquid crystal display in which light reflected from the array substrate returns to the backlight unit after passing through a polarization layer.

Claim 21. (Previously presented) The liquid crystal display panel according to Claim 1, further comprising:

a backlight unit for illuminating the liquid crystal display panel from the outside of the array substrate,

wherein the backlight unit, the array substrate, the first polarization layer, the liquid crystal layer, the color filter substrate, and the second polarization layer are successively superposed,

wherein:

a gate insulating film is formed on an upper side of the array substrate;

a gate electrode is formed in the gate insulating film;

an a Si film is formed on the gate insulating film;

a source electrode and a drain electrode are formed on the a Si film serving as a thin film semiconductor to form a thin film transistor serving as a liquid crystal material driving element;

a display electrode is formed on the gate insulating film to extend from the drain electrode; and

a common electrode is formed on the gate insulating film,

wherein the gate electrode, the source electrode, the drain

electrode, the display electrode, and the common electrode interpose the backlight unit and the first polarization layer,

wherein at least one of the gate electrode, the source electrode, the drain electrode, and the display electrode comprises a reflective metal film that reflects light emitted from the backlight unit back to the backlight unit, and

wherein the reflected light directly returns to the backlight unit without passing through the polarization layer so as to improve the light-recycling efficiency of the backlight unit, thereby improving a brightness of the liquid crystal display compared to a brightness of a liquid crystal display in which light reflected from the array substrate returns to the backlight unit after passing through a polarization layer.